

(FILE 'HOME' ENTERED AT 17:52:05 ON 12 APR 2005)

FILE 'STNGUIDE' ENTERED AT 17:52:12 ON 12 APR 2005

FILE 'HOME' ENTERED AT 17:52:18 ON 12 APR 2005

FILE 'CAPLUS, CAOLD' ENTERED AT 17:52:44 ON 12 APR 2005

L1	0 S PD (S) ZSM5-NH4
L2	0 S ZSM5-NH4
L3	5 S ZSM5 (S) NH4
L4	0 S L3 AND PD
L5	0 S L3 AND PALLADIUM
L6	1923 S PD (S) ZEOLITE
L7	343 S L6 AND ZSM?
L8	27 S L7 AND ZSM5
L9	0 S L8 AND ZSM5-NH4
L10	0 S L8 AND NH4
L11	1 S L8 AND AMMONI?
L12	27 DUP REM L8 (0 DUPLICATES REMOVED)
L13	0 S L8 AND NH4?
L14	188 S NH4 (S) ZSM
L15	171 S NH4 (S) ZSM-5
L16	7 S L15 AND PD

L16 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:1009816 CAPLUS
 TI Catalyst for catalytic dealkylation of heavy aromatic hydrocarbon and its preparation
 IN Wang, Jianwei; Liu, Zhongxun; Liang, Zhanqiao; Jin, Xinghua; Li, Yanxiu; Gui, Shouxi
 PA China Petrochemical Co., Ltd., Peop. Rep. China; Research Institute of Petroleum and Petrochemicals, China Petrochemical Co., Ltd.
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.
 CODEN: CNXXEV
 DT Patent
 LA Chinese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1472182	A	20040204	CN 2002-125843	20020730
PRAI	CN 2002-125843		20020730		

AB The catalyst is composed of Pt or Pd 0.01-2.0, zeolite ZSM-5 40-60, zeolite beta 10-20, and gamma- or eta-Al₂O₃ 20-50%. The catalyst may contain 0.01-3% Re or/and 0.01-0.3% Sn. The method comprises mixing Na-type zeolite **ZSM-5** with mordenite and Al₂O₃ hydrate, shaping, baking to obtain composite carrier, soaking in **NH₄** salt solution to convert ≥90% Na⁺ into **NH₄**⁺, soaking in SnCl₂- or/and HReO₄-containing PdCl₂ (or H₂PtCl₆) solution, drying, and baking.

L16 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:1009815 CAPLUS
 TI Catalyst for hydrodealkylation of heavy aromatic hydrocarbon and its preparation
 IN Wang, Jianwei; Liu, Zhongxun; Du, Jinxuan; Jin, Xinghua; Li, Yanqing; Gu, Haohui; Gui, Shouxi
 PA China Petrochemical Co., Ltd., Peop. Rep. China; Research Institute of Petroleum and Petrochemicals, China Petrochemical Co., Ltd.
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 10 pp.
 CODEN: CNXXEV
 DT Patent
 LA Chinese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1472181	A	20040204	CN 2002-125842	20020730
PRAI	CN 2002-125842		20020730		

AB The catalyst is composed of Pt or Pd 0.01-2.0, zeolite ZSM-5 40-60, mordenite 10-20, and γ- or n-Al₂O₃ 20-50%. The catalyst may contain 0.01-3% Re or/and 0.01-0.3% Sn. The method comprises mixing Na-type zeolite **ZSM-5** with mordenite and Al₂O₃ hydrate, shaping, baking to obtain composite carrier, soaking in **NH₄** salt solution to convert ≥90% Na⁺ into **NH₄**⁺, soaking in SnCl₂- or/and HReO₄-containing PdCl₂ (or H₂PtCl₆) solution, drying, and baking.

L16 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:532114 CAPLUS
 DN 131:146729
 TI Catalyst and method for converting heavy arene to light arene
 IN Hao, Yuzhi; Li, Yanqing; Cheng, Baoyu; Liang, Zhanqiao; Jing, Zhenhua; Gui, Shouxi
 PA China Petrochemical Corp., Peop. Rep. China
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 12 pp.
 CODEN: CNXXEV
 DT Patent
 LA Chinese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1117404	A	19960228	CN 1994-114962	19940822

CN 1048425 B 20000119
TW 408033 B 20001011 TW 1996-85100869 19960125
PRAI CN 1994-114962 A 19940822

AB The catalyst for converting heavy arene to light arene (e.g., BTX), is prepared by loading Re 0.1-0.5; Sn 0.1-0.5; and Pt 0.05-0.3% or Pd 0.2-0.8% on a support comprising ZSM-5 zeolite 30-70 and γ - or η -Al₂O₃ 30-70 weight%. The preparation is carried out by mixing ZSM-5 zeolite, Al₂O₃ (or its precursor), and 1-5% HNO₃ (25-60% of zeolite and Al₂O₃), forming, drying, and calcining at 450-650° for 2-8 h to obtain support, treating the support with NH₄⁺ salt solution, impregnating the support with a mixed solution containing precursors of Re, Sn, Pt (or Pd) (e.g., H₂PtCl₆, SnCl₂, HReO₄, etc.), filtering, drying, and calcining at 450-550° for 1-10 h. The Si/Al ratio in the zeolite is 15-150, and the crystallite size is <1 μ m. The γ -Al₂O₃ is prepared from low C alkoxy Al by hydrolysis. Sn may be loaded on Al₂O₃ or precursor of Al₂O₃ directly. The method for preparing benzene, toluene, and xylene from C₉+ arene is carried out by contacting heavy arene with the catalyst under conditions of 350-450° and 0.5-3.5 MPa, space velocity 1-5 h⁻¹, and the volume ratio of H₂ and arene 500-1200.

L16 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:191102 CAPLUS

DN 130:360487

TI On the nature of Pd species formed upon exchange of H-ZSM-5 with Pd(NH₃)₄²⁺ and calcination in O₂

AU Pommier, Bernard; Gelin, Patrick

CS Laboratoire d'Application de la Chimie al'Environnement, Universite Claude Bernard Lyon I, Villeurbanne, 69622, Fr.

SO Physical Chemistry Chemical Physics (1999), 1(7), 1665-1672
CODEN: PPCPFQ; ISSN: 1463-9076

PB Royal Society of Chemistry

DT Journal

LA English

AB The chemical of a high Pd loading Pd-H-ZSM-5 prepared by exchanging H-ZSM-5 with an aqueous solution of Pd(NH₃)₄(NO₃)₂ and calcined in O₂ was studied by FTIR and TPD expts. Acidic protons readily exchange with Pd(NH₃)₂²⁺ complexes and NH₄⁺ ions arising from the partial decomposition of Pd(NH₃)₄²⁺ possibly at the surface of H-ZSM-5 crystallites. The interaction of the Pd(II) ammine complexes with the MFI framework induced a strong absorption band at 928 cm⁻¹ attributed to the vibration of distorted T-O bonds (T = Si, Al). Slow calcination in O₂ at 653 K allowed the complete removal of NH₃ ligands from Pd(NH₃)₂ entities and the decomposition of ammonium ions into protons. Despite the high Pd loading, no large PdO particles formed and the final oxidized Pd entities could be represented by the mean formula Pd(II)(OH)_{1.30.7}⁺, suggesting the formation of isolated oxo and/or hydroxo Pd(II) complexes. A sharp IR band at 932 cm⁻¹ indicated that most of these complexes were anchored to the O atoms of the zeolite framework. On the contrary, calcination in O₂ at 773 K led to the partial sintering of isolated Pd(II) species into large PdO particles. The possible formation of mobile Pd(OH)₂ moieties in O₂ at 773 K, migrating along the MFI channels, is discussed.

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1995:248948 CAPLUS

DN 122:37832

TI Catalysts for automotive exhaust gas treatment and their preparation

IN Misonoo, Makoto

PA Tokyo Gas Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06254352	A2	19940913	JP 1993-67394	19930304
PRAI	JP 1993-67394		19930304		
AB	<p>The title catalysts comprise an H-ZSM-5 zeolite-supported Pd, obtained by ion exchange of Na-ZSM-5 zeolites with NH4+ to form NH4-ZSM-5, firing the NH4-ZSM-5 zeolites into H-ZSM-5 zeolites, and ion exchange of the H-ZSM-5 zeolites in aqueous solns. containing Pd (NO3)2 or [Pd(NH3)4]Cl2. Lean-burn exhaust gases containing large amts. of O2, little amts. of lower hydrocarbons, and NOx are treated by contacting the gases with the H-ZSM-5 zeolite-supported Pd catalysts in the presence of lower hydrocarbons, if necessary, to show total hydrocarbon contents enough for reduction of NOx in the treated gases. The catalysts are durable and increase denitration efficiency.</p>				

L16 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:174615 CAPLUS
DN 120:174615
TI Methods for loading inorganic materials with noble metals
IN Meyer, Gerd; Moeller, Angela; Speer, Dietrich
PA Degussa A.-G., Germany
SO Ger., 4 pp.
CODEN: GWXXAW

DT Patent
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4206156	C1	19931104	DE 1992-4206156	19920228
PRAI	DE 1992-4206156		19920228		
AB	<p>The title methods entail deposition of the pure noble metal on the inorg. material (e.g., ZSM-5 zeolites) by thermally decomposing an ammonium chlorometallate described by the general formula (NH4)2[MCl6] (M= Pd, Re, Os, Ir, or Pt), (NH4)3[RhCl6].H2O, or (NH4)4[Ru2Cl10O] in the absence of air or moisture. Application to catalyst preparation is indicated.</p>				

L16 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1983:186434 CAPLUS
DN 98:186434
TI Metal-exchanged crystalline zeolites
IN Rollmann, Louis Deane
PA Mobil Oil Corp., USA
SO Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW

DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 68754	A2	19830105	EP 1982-303181	19820618
	EP 68754	A3	19840118		
	EP 68754	B1	19860226		
	R: BE, DE, FR, GB, IT, NL				
	US 4431746	A	19840214	US 1981-277495	19810626
	ZA 8201098	A	19840125	ZA 1982-1098	19820610
	CA 1185587	A1	19850416	CA 1982-405130	19820614
	AU 8285018	A1	19830106	AU 1982-85018	19820618
	JP 58009813	A2	19830120	JP 1982-108639	19820625
	BR 8203744	A	19830621	BR 1982-3744	19820625
PRAI	US 1981-277495	A	19810626		
AB	<p>Extremely stable and active hydrocarbon-conversion catalysts for processes at 25-800° are prepared by exchanging a crystalline zeolite of SiO2/Al2O3 mol ration ≥20 with a transition metal complex solution such that for V, Mn, Fe, Co, Ni, Cu, Zn, Pd, Pt, U, Ru, or Os the complex has a charge of 0 or 1 or for Rh, Cr, Ir, Ti, Zr, Nb, Mo, Ta, W, Re, or</p>				

lanthanamides the complex has a charge of 0-2. The complex ligand is CO, C₆H₆, C₅H₅, PH₃, or NH₃. Thus, **NH₄** zeolite **ZSM-5** with SiO₂/Al₂O₃ mol ratio of 37 was exchanged with an aqueous solution of Co(NH₃)₄(CO₃)⁺ to give a catalyst containing 0.52% Co.